## 1.0 Purpose & Scope

The purpose of this procedure is to identify wastes and potential hazardous materials in a building scheduled for demolition, remodeling, or utility upgrade.

## 2.0 Activities & Departments Affected

1. Activities:
    a. Building demolition
    b. Building renovation
    c. Utility repairs within a buildings

2. Departments:
    a. Project Managers
    b. Building Managers
    c. Environmental Programs Group (EPG)

## 3.0 Exclusions

There are no known exclusions. If tenants plan to remodel or do utility repair within a building or under a sub-slab, they have a responsibility to comply with GSA's Consent Order and State and Federal hazardous waste regulations.

## 4.0 Forms Used & Permits Required: (include reporting requirements)

☐ **Federal and State Forms and Permits**: None

☐ **In-house GSA Region 8 and Contractor Forms**:

- Pre-Demolition Inspection Checklist

## 5.0 Acronyms, Abbreviations and Definitions

| Acronyms | Meaning |
|---|---|
| ACM | Asbestos Containing Material |
| ASTs | Above ground Storage Tanks |
| CCR | Colorado Code of Regulations |
| CDPHE | Colorado Department of Public Health and Environment |
| CFCs | Chlorofluorocarbons |
| CO | GSA Contracting Officer |
| DFC | Denver Federal Center |
| EHS | Environmental, Health and Safety |
| EPG | Environmental Program Group |
| GAC | General Asbestos Contractor |
| GSA | General Services Administration |

| Acronyms | Meaning |
|---|---|
| LCP | Lead/Heavy Metal Contaminated Paint |
| PCBs | polychlorinated biphenyls |
| PM | Project Manager |
| RCRA | Resource Conservation and Recovery Act |
| RFI | RCRA Facility Investigation |
| RFP | Request for Proposal |
| SOW | Statement of Work |
| TCLP | Toxic Characteristic Leaching Procedure |
| TSCA | Toxic Substances Control Act |
| USTs | Underground Storage Tanks |

Definitions: None

## 6.0 Procedure

**State Specific Procedures & Requirements** [refer to individual State Legal Reviews for details on Statues, Laws, and Rules]:

Refer to Region 8 SEMS Environmental Procedures:

- Asbestos

**Standardized Procedure:**

6.1 Contact EPG for help prior to developing the Statement of Work (SOW) for the demolition, renovation, or repair.

6.2 Obtain a building plan or map to locate features and utilities of the project area.

6.3 Review the building Asbestos Report, any RCRA Facility Investigation (RFI) documents and other relevant environmental information.

6.4 Conduct a walk-through of the project / site area; an inspection.

6.5 Mark on map features and fill in Pre-Demolition Inspection Checklist. Features:

- Asbestos Containing Materials (ACM): Wall board, steam pipes, floor tile, ceiling tiles, etc.
- Floor drains
- Loading docks (hydraulic or electric)
- Heavy Metal (i.e., lead, chromium) Contaminated Paints: Different color painted brick/concrete walls
- Polychlorinated biphenyls (PCB): Asphalt sealing materials such as roofing or air ducts, electrical equipment such as transformers, light ballasts, and

capacitors (older than 1979).
- Mercury-containing light tubes, switches, and thermostats,
- Underground or Above ground Storage Tanks (USTs/ASTs)
- Refrigerants (Halogenated Fluorocarbons, Chlorofluorocarbons (CFCs))
- Identify chemical storage areas (i.e., products, labs, cleaning agents).
- Identify Spill areas

6.6 Finalize the Pre-Demolition Inspection Checklist with technical support from EPG.

6.7 Submit the completed Pre-Demolition Inspection Checklist to the contractor. The contractor shall prepare a site-specific health and safety plan to minimize impact to workers and tenants.

6.8 Contractor prepares a site-specific health and safety plan to minimize impact to workers and tenants.

6.9 Obtain sampling requirements from EPG or the Safety Group for the SOW or RFP.

6.10 Include relevant requirements for demolition, remodeling or utility repair in the SOW or RFP as an Appendix.

## 7.0 Records Management

Pre-Demolition Checklist
Paint sampling analytical results
ACM sampling analytical results
Asbestos abatement permit

## 8.0 References

Colorado Department of Public Health and Environment (CDPHE), Air Quality Control Commission, 5 CCR 1001, Regulation 8- Control of Hazardous Air Pollutants - Parts A, C, D, & E [10] - (Amended 07/21/2005, effective 09/30/2005)

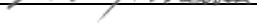
CDPHE, Air Quality Control Commission, 5 CCR 1001, Regulation 8, Part B - Asbestos [10]- (Amended 12/16/2004, effective 03/02/2005)

CDPHE, Hazardous Waste Commission, 6 CCR 1007-3, Regulations under Part 260-279

CDPHE, Colorado Solid Waste, Regulations 6 CCR 1007-2, Regulations Pertaining to Solid Waste Disposal Sites & Facilities

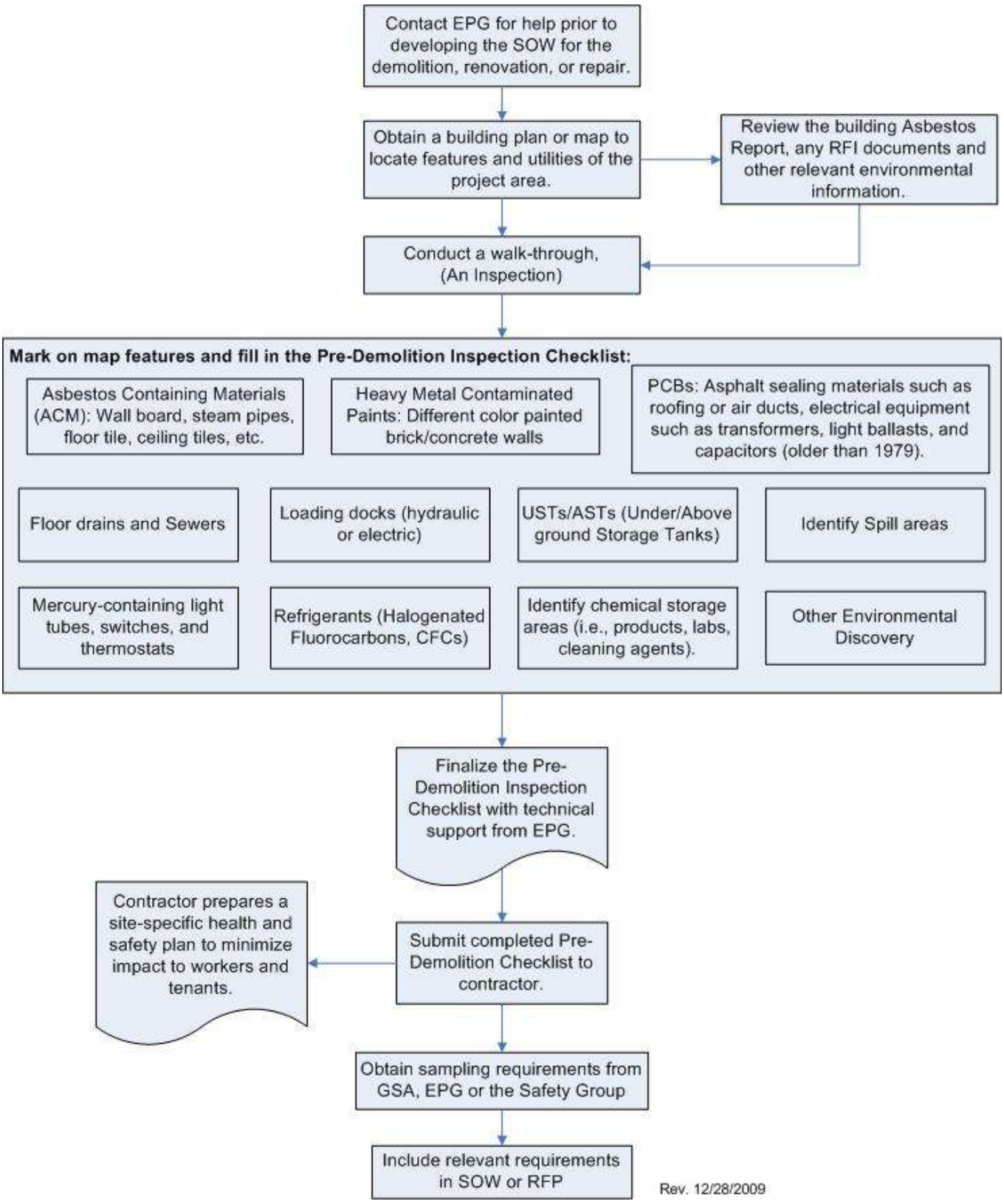
## 9.0 Appendices

Attachment A: Pre-Demolition Inspection Flowchart
Attachment B: Pre-Demolition Inspection Checklist Form

| **Document Control Information:** | **Approved & Dated:** |
|---|---|
| Pre-Demolition Inspection *"Month-Date-Year"*.doc |  March 10, 2010 |

| **Document Revision and Update:** | | |
|---|---|---|
| **Revision Date** | **Nature of Revision** | **Revision made by:** |
| 11/30/2005 | Working Draft | Robert Melvin, John Kleinschmidt |
| 03/16/2006 | Original Release | Robert Melvin, John Kleinschmidt |
| 11/07/2007 | Update Form | Robert Melvin |
| 06/19/2009 | Add ISO 14001 Document Control | Robert Melvin, Doug Porter [procedure changed to capture recycling-changes dropped one week later] |
| 01/29/2010 | Revise text and add Flowchart | Robert Melvin |

Attachment A: Pre-Demolition Inspection Flowchart



ATTACHMENT B: Pre-Demolition Inspection Checklist Form

Project: _____ Inspection Date: _____

Project Manager: _____

EPG Personnel: _____

Other Personnel: _____

Surveys for some of the regulated building materials require qualified EHS personnel who are licensed to perform this type of work. Accreditations, certifications and other requirements for performing asbestos and lead inspections are specified by federal, state and local regulations.

☐ Obtain a building interior map of the project area

☐ Obtain building utility maps for both interior/exterior sewer lines

☐ Do room by room inspections; Number of Total Rooms: _____

☐ Accurately mark on map on a room by room basis:

- ☐ Floor drains,
- ☐ Lead/Heavy Metal Contaminated Paint (LCP), Different color painted brick/concrete walls
- ☐ Asbestos Containing Material (ACM), Walls/wall board with potential ACM, Steam Pipes contained or not contained or subslab, Floor tile types
- ☐ Polychlorinated biphenyls (PCBs), asphalt sealing materials such as roofing or air ducts, electrical equipment such as transformers, light ballasts, and capacitors (older than 1979).
- ☐ Mercury-containing light tubes, switches, and thermostats,
- ☐ USTs/ASTs (Under/Above ground Storage Tanks),
- ☐ Refrigerants (Halogenated Fluorocarbons, CFCs), and
- ☐ Other stored chemicals, products, or cleaning agents. Note spills.

Building Number: _____ Inspector: _____ Date: _____ Page ___ of ___

| Room Number | Floor drains (Y or N) | LCP (Y or N) | Asbestos (ACM) | | | PCBs | | Mercury-containing light tubes, switches, & thermostats | Chemicals found (Name and Quantity) | Comments (e.g. laboratory, water damage, peeling paint, suspected asbestos[(1)]) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Walls / wall board | Steam Pipes | Floor & Ceiling tile types | Asphalt sealing materials | Electrical components (ballasts, transformers | | | |
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ACM - Asbestos Containing Material ( [1] friable floor or ceiling tiles, sprayed-on insulation, pipe wrapping, duct wrapping); LCP - Lead/Heavy Metal Contaminated Paint

COMMENTS:

Building Number: _____ Inspector: _____ Date: _____ Page ___ of ___

☐ Are any above or below ground storage tanks, vent or filler pipes located on the premises? (____ Yes ____ No)

| AST / UST | Location | Age | Staining (Y or N) | Known Leaks | Comments (e.g. last tested, known problems) |
|---|---|---|---|---|---|
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☐ Is there a transformer on the property? (___ Yes ___ No) Has the transformer been tested? (___ Yes ___ No)

| Identification Number | Location | Age | Staining (Y or N) | Known Leaks | Comments (e.g. last tested, known problems) |
|---|---|---|---|---|---|
| | | | | | |
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☐ Is there a loading dock on the building? (___ Yes ___ No)

| Loading Docks | Location | Hydraulic Lifts | Storage Areas (describe contents; e.g. drums) | Staining (Y or N) | Comments (e.g. discoloration, oil sheens, foul/unusual odors, leaks) |
|---|---|---|---|---|---|
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## APPENDIX A: ENVIRONMENTAL REQUIREMENTS FOR DEMOLITION, RENOVATION OR UTILITY UPGRADE

Demolition only:

**BUILDING CLEAN OUT** - The building will be cleaned out of all chemical and chemical residues stored in the building.

**LIGHT FIXTURES, TRANSFORMERS, AND LIGHT BULBS** - Light fixtures, if they contain ballast with potential PCB will be separated and drummed for disposal per regulation. Building transformers will be tested for PCBs and appropriately disposed under TSCA. Fluorescent light bulbs will be collected and recycled.

All activities:

**PAINTED SURFACES** - Old paints commonly contain lead, may contain chrome, and other heavy metals. PCB's have rarely been used in paints. Determination of lead may be through use of XRF.

- Sample paint surfaces for waste disposal with suspected hazardous components, run Toxic Characteristic Leaching Procedure (TCLP) analysis for metals. Sample should be of the paint surface and underlying strata (e.g., wood, brick, concrete). If knowledge of the material or paint is known which can tell it is not metal-based paint (e.g., latex paint on wallboard), no sampling is required for the specific surface.

- Sample all concrete, brick, etc., which are painted have the potential to be recycled.

- Sample all painted soft material such as wood which may be disposed.

**ASBESTOS** - If suspected ACM is present, a State Asbestos Certified Building Inspector will inspect the building. The inspector will collect samples of the suspected ACM for analysis at an accredited laboratory. If ACM is determined to be present by either analysis or knowledge of material (building asbestos survey report), indicate ACM present. The ACM must be abated by State Certified Abatement Contractor.

- Types of material which may be ACM are as follows: insulation on steam pipes, mud for wall board, floor tile, mastic for floor tile. Sub-slab steam pipes are known to have ACM used for insulation.

- An abatement permit must be obtained and abatement of the asbestos for the building must be completed prior to demolition. The permit must be applied for by a licensed General Asbestos Contractor (GAC) and is obtained through CDPHE's Air Division. Only the GAC can apply for the permit.

**SUBSLAB** If sub-slab of building **has not** been pre-cleared by EPG the following is required, (EPG personnel will aid PM on this portion of the project):

- The sewer line must be flushed to clean the line.

- The water used to flush the line may have to be captured and analyzed for full TCLP constituents and other constituents. This is based on the use of the building. If no indication that the material has potential environmental issues related to the sewer, the water may be allowed to be reintroduced into the sewer. The PM should contact the EPG to discuss the historic use of the building. The EPG will contact Metro Waste Water to determine is sampling is required and what it should consist off. This will determine if the water needs to be sampled or can simply released back into the sewer At a minimum, all granular material or other components that could plug the sewer system must be filtered and removed. If the water has been sampled, Metro Waste Water will be contacted by EPG for permission to dispose of the water back into the sanitary sewer. All of the analytical data collected in support of the discharge request will be transmitted to Metro Waste Water. If based on the analysis the water is classified as hazardous waste or does not meet Metro Waste Water discharge requirements, it will be collected and disposed at an appropriate facility.

- During excavation, the soils surrounding the sewer line and floor drains must be observed for potential contamination (e.g., odor/staining). If contamination is observed, soil samples are required. The stained soils, if excavated, shall be segregated so that they can be containerized and disposed of appropriately.

If sub-slab of building has been pre-cleared by EPG the following is required, (EPG personnel will aid PM on this portion of the project):

During excavation, the soil surrounding the sewer line and floor drains must be observed for potential contamination (e.g., odor/staining). If stained soils/contamination is observed, contaminated soils will be segregated and sampling will be required. Contact EPG for support in determining what analytical suite should be run. At a minimum, a full TCLP should be run.